

## ORNITHOLOGICAL LITERATURE

THE WILD TURKEY, ITS HISTORY AND DOMESTICATION. By A. W. Schorger. University of Oklahoma Press, Norman, 1966: 6¼ × 9½ in., xiv + 625 pp., 1 col. pl., 48 bl. and wh. pls., 20 figs., 34 tables. \$10.00.

The great American bird known as Turkey has had a tremendous influence on the culture and economy of both primitive and civilized man. Native to the temperate regions of North America, the Turkey was domesticated by the relatively highly civilized Indians of Mexico and subsequently has spread all over the world in numerous domestic varieties.

A. W. Schorger, by his characteristically patient and exhaustive search of the literature, has brought to light an enormous amount of information on the history and biology of this extraordinary bird. The rapid-fire citation of references, although related to each other under general headings, is not conducive to a smooth flow of ideas. However, the author has handled this type of presentation skillfully.

The format of the book is attractive and it is adequately although not liberally illustrated by appropriate photographs and line drawings. One plate in color by Owen J. Gromme depicts three gobblers in a woodland setting.

In Europe, before the discovery of America, any large bird which spread its tail, including the Capercaillie, came to be known as "turkey." Most of these were probably peafowl which may have received that name because it was known to have reached Europe via the trade routes from the Orient through the general region then known as "Turkey." Later when the American bird, which we now know by that name, was taken to Europe by the Spanish explorers and later reached England, it likewise appears to have been confused with the peacock and acquired from it the name turkey.

During his march to Mexico City, Cortez found domestic Turkeys in practically every town, and early explorers found them confined extensively in pueblos of the Indians in what is now the southwestern United States.

On a map of original ranges of Turkey subspecies in the United States and Canada, the extension of the Rio Grande Turkey up the Pecos River to meet the Merriam's Turkey in southeastern New Mexico is questionable as is also the extension of the range of Merriam's Turkey down the Canadian River in eastern New Mexico to meet the Rio Grande Turkey in the short grass plains of the Texas Panhandle. There would seem to be no reason for assuming that Merriam's Turkey was formerly any less confined to mountain habitats than at present.

The map of original distribution of wild Turkeys in Mexico, based on extensive and difficult literature search, is a valuable contribution to our knowledge. It eliminates the disturbing gap in the range of the southern race (*gallopavo*) shown on maps in other recent publications.

Attempts to estimate pre-Columbian Turkey populations by state are an interesting exercise but seem rather futile in view of the difficulty experienced by modern game managers in the same states with the much more reliable information available today.

In the field of classification, the fossil record of extant and extinct species of turkey is described. Taxonomic affinities of modern turkeys based on morphological characters, hybridization tendencies, and protein relationships are discussed. Generic distinctness of *Meleagris* from *Agriocharis* is considered justified but no opinion is offered as to the distinctness of the family Meleagrididae from Phasianidae.

In discussing the much debated application of Gould's *mexicana*, despite a question over the type locality, Schorger came to the logical conclusion that, based on measure-

ments of the type specimen, *mexicana* is referable to the large Turkeys of the Sierra Madre Occidental of Northwestern Mexico, not the small bird of the mountains in the latitude of Mexico City.

Schorger believes that there probably are few wild Turkeys in the United States today without some admixture of domestic blood because of the considerable amount of opportunity for interbreeding. This concept appears to overlook the principle of natural selection. Leopold (1944) produced evidence of genetic characteristics of "wildness" in wild Turkeys not found in domestic birds. These traits, presumably, are selected for survival by the wild Turkey's exacting environment. Birds with characteristics that might result from crossing with domestic stock would tend to be eliminated before reaching reproductive age. Evidence both for and against this thesis is given in the chapter on characteristics but no proof is shown that either domestic Turkeys or those of mixed blood have become established as wild birds in other than semi-domestic environments or notably predator-free areas such as the Hawaiian Islands.

Interesting evidence of inborn fear of predators among pure wild Turkeys was shown by an experiment in which a silhouette model having a short neck and long tail when moved in view of young Turkeys in a normal fashion simulating a hawk aroused the birds to fear; when pulled tail first, "simulating a goose," they showed no fear. There seemed to be general agreement in references cited that wild Turkeys could not be thoroughly domesticated in one generation. Successive generations in captivity produced tamer birds. Presumably, selection of more tractable individuals was involved.

The author points out the great variety of environments occupied by Turkeys in different parts of their range and different times of the year. He then proceeds to show that different races of Turkey seem to have quite limited tolerance for environmental conditions and that their ranges tend to fall rather neatly into regions having different amounts of precipitation.

One chapter is devoted to management and there is a wealth of citation of pertinent published information under such subjects as legal protection, winter feeding, food planting, controlled burning, water supply, rearing in captivity, standards for wild Turkeys, capture of wild birds for restocking, drifting following release, determination of sex and age, and population census. Causes of Turkey mortality such as predation, weather, accidents, diseases, and parasites are documented in detail and will serve as a valuable source of reference for wildlife managers. A conclusion was reached that successful management of Turkeys is tied to good wild stock and a range of adequate size and quality. Since wild Turkeys will not breed successfully in captivity, this means transplanting from wild stock to increase range. Although the author states in his preface that management is treated very lightly because it is aside from his main objective, much of significance in this field is included not only in this chapter but in those on other subjects particularly on restoration and introduction. In fact, the book is a well-balanced monograph on the wild Turkey from all aspects.—JOHN W. ALDRICH.

THE BIRD FAUNAS OF AFRICA AND ITS ISLANDS. By R. E. Moreau. Academic Press, New York, 1966: 6 × 10 in., viii + 424 pp., 65 figs. (photos and diagrams). \$18.00.

No more timely book on African ornithology has appeared in recent years than Mr. Moreau's "Bird Faunas of Africa." To those of us fortunate enough to have witnessed African birds and lived with them, the full breadth of this book should at once be apparent. It is more than just an account of the composition and origins of the bird